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JUN 03 1999

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0811-99

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF REVISED AREA 2, PHASE I EXCAVATION STRATEGY FOR 1999

References:
1) Letter DOE-1046-98, J. W. Reising to J. Saric and T. Schneider, "Transmittal: Final Sitewide Excavation Plan, Change Pages to Area 1, Phase 1 Certification Report, Final Area 2, Phase I Integrated Remedial Design Package, and Draft Certification Report for Area 8, Phase I," dated July 30, 1998

2) Letter DOE-0592-99, J. Reising to J. Saric and T. Schneider, "Transmittal of Draft Operable Unit 2 South Field Firing Range Remediation Approach and Fact Sheet," dated March 30, 1999

3) Letter DOE-0431-99, J. Reising to J. Saric and T. Schneider, Transmittal of the Project Specific Plan for Area 2, Phase I South Field Excavation Characterization," dated February 12, 1999

This letter outlines the excavation strategy for the Southern Waste Units (SWU) as originally presented in Reference 1. The general approach was initially presented and discussed with the Ohio Environmental Protection Agency (OEPA) during a teleconference on January 13, 1999, and again with OEPA and U.S. Environmental Protection Agency (EPA) during the "1998 Soil Characterization and Excavation Project (SCEP) Lessons Learned and 1999 Look Ahead" presentation on January 26, 1999.

Initially, Temporary Berm No. 1 will be constructed to divert uncertified South Field surface water runoff from entering the former Inactive Flyash Pile (IFP) area north of Interceptor Ditch No. 2 (see enclosed figure). Once the berm is installed, at least four additional feet of material north of Interceptor Ditch No. 2 will be excavated, along with a spot excavation south of Interceptor Ditch No. 2. This material was found to exceed the uranium Final Remediation Level (FRL) at the conclusion of the Calendar Year (CY) 1998 excavation season. When all of the above-FRL areas in the IFP have been excavated and Real-Time Instrumentation (RMS or HPGe) demonstrates that the uranium FRL has been attained, the upper portion of Interceptor Ditch No. 2 (west to east section) will be excavated and disposed of in the On-Site Disposal Facility (OSDF). This will allow the surface water runoff from the northern portion of the former IFP to drain into the southern portion.

Upon completion of the additional excavation within the former IFP, the Impacted Material Stockpiles located within the South Field, designated as MTL-SWU-030, MTL-SWU-004, and debris stockpile MTL-SWU-005, will be excavated. Real-time scanning will only be performed on the west South Field Impacted Material Stockpile, not the stockpiles containing material excavated from the IFP during CY1998 (the IFP material was scanned in place prior to excavation). The accessible surface of the South Field is currently undergoing a real-time scan to identify any above-Waste Acceptance Criteria (WAC) uranium activity. The scan will be completed after the stockpile material has been removed and placed in the OSDF; at that time, excavation will commence over the South Field footprint and progress in 3 ± 1 foot horizontal lifts as in the IFP during CY1998. Category 2 material will be segregated from Category 1 material during excavation in order to maximize the volume of Category 1 material placed in the OSDF. The Construction Manager will coordinate the excavation of the SWU material to support optimal debris placement in the OSDF.

This approach will not be used for lead-contaminated soil, since it is defined by predesign sampling and designated in the construction drawings and specifications as characteristically hazardous waste. This soil will be stabilized by the subcontractor who will also stabilize the lead-contaminated soil in the Area 1, Phase II Trap Range. After the stabilized soil passes the Toxicity Characteristic Leachate Procedure (TCLP) analysis, it will be excavated along with additional above-lead FRL material, and the surrounding South Field soil, and disposed of in the OSDF. This approach was initially presented in Reference 2 and approved.

Interceptor Ditch No. 1 will be removed from upstream to downstream as the surrounding lifts of impacted material are excavated. Temporary Berm No. 2 (which replaces the originally designed Interceptor Ditch No. 3) will be constructed as the topography is lowered to design grade in order to protect the exposed Great Miami Aquifer from uncertified surface water runoff from the South Field. The existing drainage pattern of the South Field, which diverts flow from the northern portion to Retention Basin 1 and from the southern portion to Retention Basin 2, will be maintained throughout the excavation.

During the excavation of each lift, the excavation face will be continuously visually monitored for special materials and changes in soil appearance. If special materials are encountered, they will be handled on a case-by-case basis by the Fluor Daniel Fernald, Inc. (FDF) Construction Manager or designee, Waste Acceptance Organization (WAO) field personnel, Radiological Control Technician excavation field support organizations, and the excavation contractor. Upon completion of a lift excavation, and prior to the next excavation lift, the surface will undergo a real-time scan to identify any above-WAC uranium activity. The excavation control monitoring as described has been previously submitted in Reference 3 and approved.

Temporary Berms No. 1 and No. 2 will be removed when design grades are met and a real-time scan demonstrates that the FRL has been reached upgradient of the berms. This will occur in CY 2000. Likewise, the remainder of Interceptor Ditch No. 2 will be removed when design grades are met and real-time scanning demonstrates that the FRL has been reached upgradient from the ditch. The material removed from the Temporary Berms and Interceptor Ditch No. 2 will be excavated and disposed of in the OSDF. These locations will be scanned with real-time instrumentation to verify that the surface meets the FRL, and then graded for positive drainage.

The remaining portion of the Active Flyash Pile (AFP) should be excavated in October 1999 to coincide with its use as select material for OSDF Cell No. 3 construction. No real-time scanning is planned, as was the approach previously implemented for the excavation of the top portion of the AFP. Radiological monitoring will be performed during the excavation as necessary. As with the South Field excavation, the AFP excavation will be continuously visually monitored for special materials and changes in the appearance of the excavated material.

Precertification and certification activities will commence after the IFP, South Field, and AFP have been excavated. Predesign sampling in areas surrounding the SWU will be conducted this year, and subsequently may impact the Area 2 certification schedule. This issue will be discussed at a later time when the results of sampling and the need for excavation are more defined.

Note that field conditions, weather, or schedule may require modification to this general excavation approach in order to allow for continued excavation and placement of impacted materials in the OSDF. An example of such a modification may include the removal of the east MTL-SWU-004 stockpile followed by real-time scanning and excavation of the northeast corner of the South Field prior to the removal of the west MTL-SWU-004 stockpile. Experience during the CY1998 excavation season in the removal of the top portion of the west MTL-SWU-004 stockpile demonstrated that the material was wet and was difficult to compact at the OSDF; therefore, the excavation contractor will probably have to work this stockpile by mixing it with other stockpiled material (the east or south MTL-SWU-004 stockpiles generated from the IFP) or spreading the material to enhance drying and facilitate placement in the OSDF. The Agencies will be kept informed of such field adjustments as they occur.

This revised excavation strategy for the former IFP, South Field, and AFP will result in the excavation of approximately 175,000 cubic yards of impacted material and is expected to be completed by the end of CY1999. The South Field accounts for approximately 140,000 cubic yards and is expected to take twelve, 3 ± 1 foot horizontal lifts.

Please contact Robert Janke at (513) 648-3124 if there are any questions regarding this strategy.

Sincerely,

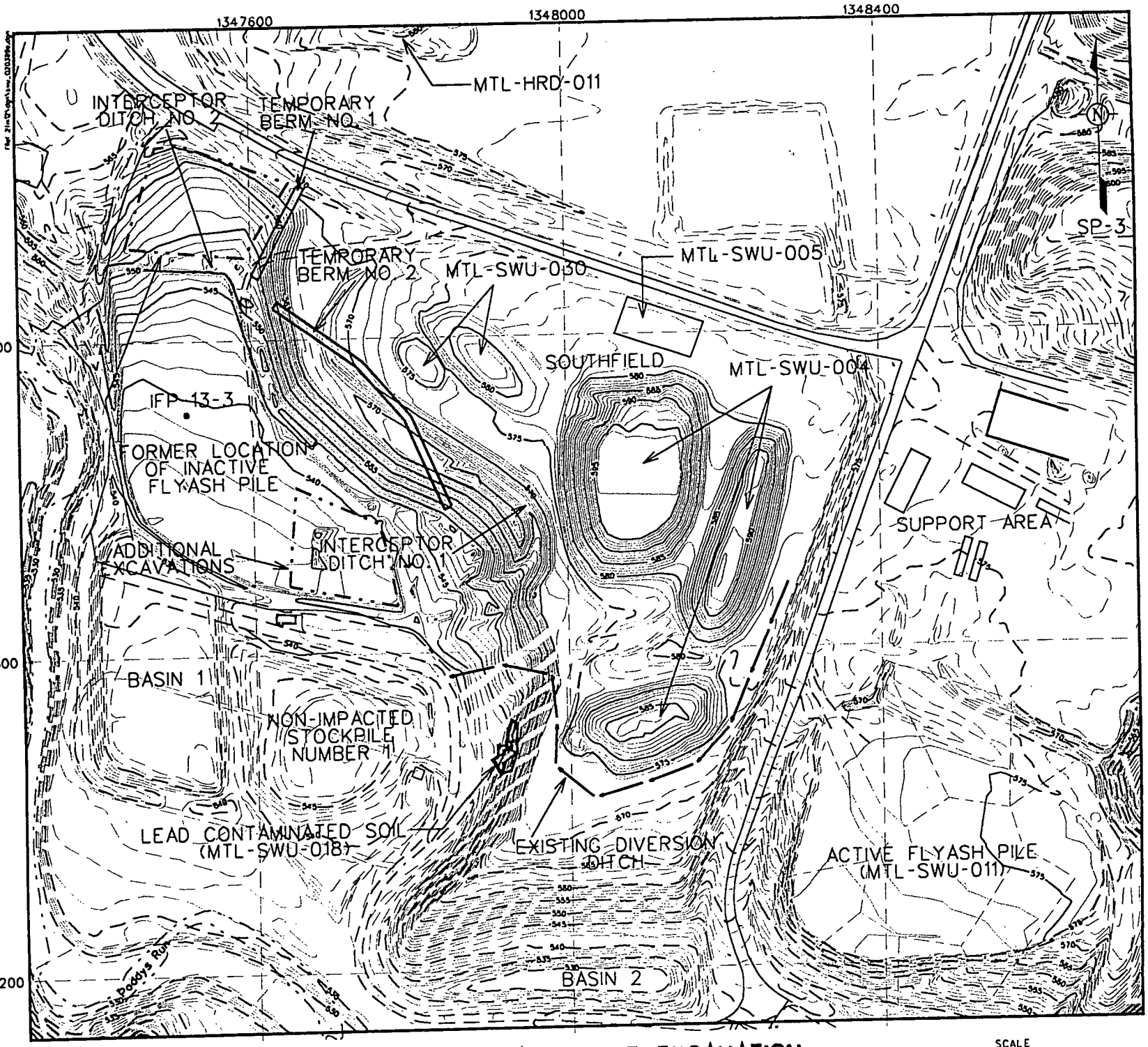
for Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:R.J. Janke

Enclosure

cc w/enclosure:
G. Jablonowski, USEPA-V, SRF-5J
R. Beaumier, TPSS/DERR, OEPA-Columbus
T. Schneider, OEPA-Dayton (three copies of enclosure)
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Barker, Tetra Tech
AR Coordinator, FDF/78

cc w/o enclosure:
N. Hallein, EM-42/CLOV
D. Carr, FDF/52-2
J. D. Chiou, FDF/52-0
T. L. Crawfored, FDF/52-0
T. Hagen, FDF/65-2
J. Harmon, FDF/90
R. Heck, FDF/2
S. Hinnefeld, FDF/31
T. Walsh, FDF/65-2
ECDC, FDF/52-7



Notes:

1. Temporary Berms No. 1 and No. 2 are to be constructed as excavation progresses.

SOUTHERN WASTE UNIT EXCAVATION (Survey 2/99)

SCALE
100 50 0 100 FEET

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